



Grant Workplan Projects and Practices 2020

Grant Title - Thompson Oaks Targeted Stormwater Management and Wetland Restoration Project

Grant ID - C20-4213

Organization - Dakota County

Original Awarded Amount	\$576,447.00	Grant Execution Date	
Required Match Amount	\$144,111.75	Original Grant End Date	12/31/2022
Required Match %	25%	Grant Day To Day Contact	Mike Behan
Current Awarded Amount	\$576,447.00	Current End Date	12/31/2022

Budget Summary

	Budgeted	Spent	Balance Remaining
Total Grant Amount	\$576,447.00	\$0.00	\$576,447.00
Total Match Amount	\$144,111.75	\$0.00	\$144,111.75
Total Other Funds	\$0.00	\$0.00	\$0.00
Total	\$720,558.75	\$0.00	\$720,558.75

**Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.*

Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Comprehensive Stormwater Treatment and Wetland Restoration	Urban Stormwater Management Practices	Current State Grant	Hydrodynamic Separators, Filtration Basin, Water Reuse System	\$375,000.00			N
Design, Engineering, Construction, Oversight, Remaining Match for Construction Costs	Technical/Engineering Assistance	Local Fund	Local In-Kind & Cash Match	\$144,111.75			Y

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
Education/Outreach	Education/Information	Local Fund	Education/Outreach	\$0.00			Y
Streambank or Shoreland Protection	Streambank or Shoreline Protection	Current State Grant	Stream Restoration/Daylighting	\$75,000.00			N
Wetland Restoration	Wetland Restoration/Creation	Current State Grant	Wetland Restoration	\$126,447.00			N

Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
712M - Bioretention Basin	1	0	1 COUNT	0 COUNT
636 - Water Reuse	1	0	1 COUNT	0 COUNT
580 - Streambank and Shoreline Protection	1	0	1 COUNT	0 COUNT
657 - Wetland Restoration	2	0	2 COUNT	0 COUNT
587 - Structure for Water Control	3	0	3 COUNT	0 COUNT

Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
Comprehensive Stormwater Treatment and Wetland Restoration	VOLUME REDUCED (ACRE- FEET/YEAR)	4.5 ACRE-FEET/YR	Mississippi River	MIDS	
Comprehensive Stormwater Treatment and Wetland Restoration	PHOSPHORUS (EST. REDUCTION)	228 LBS/YR	Mississippi River and Lake Pepin	P8 Urban Catchment Model	
Comprehensive Stormwater Treatment	SEDIMENT (TSS)	94 TONS/YR	Mississippi River	P8 Urban	

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
and Wetland Restoration			and Lake Pepin	Catchment Model	

Grant Activity

Grant Activity - Comprehensive Stormwater Treatment and Wetland Restoration	
Description	The project will be completed in conjunction with construction of the Dakota County River to River Regional Greenway trail. The project converts 10 acres of the former municipal golf course to a regional stormwater treatment system and restores a former wetland and creek complex. Three hydrodynamic separators will be retrofitted on trunk storm sewers to provide the first level of stormwater treatment (pretreatment) for the comprehensive system. A filtration basin and adjacent buffer/irrigation area will be constructed. A water reuse system will be constructed at the end of the system to irrigate the buffer/green space. All practices will have a 25 year effective life and be designed for the 1.1" storm event to MIDS or other accepted engineering standards. Dakota County will use a professional engineering firm for final design drawings and for technical certification. Maintenance will be performed by Dakota County and the City of West St. Paul as identified in a maintenance agreement. The filtration basin is approximately 1.8 acres in area and the re-use irrigation area/buffer is 3.5 acres. A wet storage surface area, as part of the reuse system, will be created and sized to provide sufficient capacity throughout the season to irrigate an annual average volume of 4.5 acre feet over the 3.5 acre irrigation area.
Category	URBAN STORMWATER MANAGEMENT PRACTICES
Has Rates and Hours?	No

Activity Action - Infiltration Area & Irrigation Area			
Practice	712M - Bioretention Basin	Count of Activities	3
Description	Infiltration basin and adjacent prairie and buffer areas for irrigation/reuse.		
Proposed Size / Units	1 COUNT	Lifespan	25 Years

Activity Action - Hydrodynamic Separators			
Practice	587 - Structure for Water Control	Count of Activities	3
Description	Three hydrodynamic separators on trunk storm sewer lines to provide the first level of stormwater treatment (pretreatment) for the comprehensive system.		
Proposed Size / Units	3 COUNT	Lifespan	25 Years

Activity Action - Water Reuse System			
Practice	636 - Water Reuse	Count of Activities	3
Description	Water reuse system placed at the end of the system to provide irrigation of greenspace for volume reduction, sediment reduction, and TP reduction on an annual basis.		
Proposed Size / Units	1 COUNT	Lifespan	25 Years

Grant Activity - Design, Engineering, Construction, Oversight, Remaining Match for Construction Costs	
Description	Dakota County will oversee the proposed project design and work with a private engineering firm to complete final plans and specifications, construction administration, inspection, preparation of as-builts, and practice certification. A contracted professional engineering firm will provide final design drawings and technical certification (project sign-off) for the proposed project. Plan review/comments and construction observation will be a combination of internal Dakota County staff (Mike Behan and Josh Peterson, PE) and potentially utilizing observation services from the County's contracted engineering firm. The projects will remain in place for 25 years. Dakota County will obtain WCA and CWA approvals, including completion of contaminated site remediation currently located within the proposed BMP areas in accordance with the MPCA approved Response Action Plan provided to the City of West St. Paul. Match will be derived from non-state sources (local Dakota County and City of West St. Paul levy).
Category	TECHNICAL/ENGINEERING ASSISTANCE
Has Rates and Hours?	Yes

Grant Activity - Education/Outreach	
Description	The project's location alongside a proposed segment of the River to River Greenway provides a significant opportunity to communicate the project's need, benefits, and long term impacts to the local community to a large and diverse audience. Dakota County will produce professional, permanent, interpretive signage at the project location and will produce a promotional video highlighting Clean Water Fund dollars at work. It is anticipated that the proposed project video and signage will be communicated in Spanish and potentially several other languages. Dakota County will also prepare a project webpage and utilize its e-newsletter for residents and social media pages to promote awareness of the project. All promotional and communicative materials will feature the Legacy Amendment logo and partner agency logos.
Category	EDUCATION/INFORMATION
Has Rates and Hours?	No

Grant Activity - Streambank or Shoreland Protection

Description	The project consists of daylighting 700 linear feet of a historical creek section. A trunk storm sewer line beneath the current Thompson Oaks golf course will be removed so that flows can be brought to the surface via a restored creek bed. The creek will have a 25 year effective life and be designed for the 1.1" storm event to MIDS or other accepted engineering standards. Dakota County will use a professional engineering firm for final design drawings and for technical certification. Maintenance will be performed by Dakota County and the City of West St. Paul as identified in a maintenance agreement. Dakota County will be responsible for maintenance of vegetation elements -- annual inspections and maintenance (i.e. prescribed burns, herbicide treatments, mowing), and will support any necessary stream maintenance via annually dedicated Dakota County Parks and Greenways CIP/Maintenance Budget equal to 20% of the project costs. Flow will be accommodated in the streambank restoration area to match existing capacity of the downstream storm sewer system. A flow split structure will send low flows to the filtration basin while higher flows will be routed to the new stream.
Category	STREAMBANK OR SHORELINE PROTECTION
Has Rates and Hours?	No

Activity Action - Stream Restoration/Daylighting

Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	A trunk storm sewer line beneath the current Thompson Oaks golf course will be removed so that flows can be brought to the surface via a restored creek bed. The restored creek also provides primary treatment through annual TP and sediment removal.		
Proposed Size / Units	1 COUNT	Lifespan	25 Years

Grant Activity - Wetland Restoration

Description	Eight acres of enhanced treatment wetlands will be restored. Restoration of the existing Wentworth Pond and of an adjacent (previously filled) historic wetland will be completed with to provide sediment and TP removals. Vegetation restoration and a weir will be constructed to control stormwater flows routed to the restored creek, infiltration area, and reuse system. The wetlands will have a 25 year effective life and will be designed per MIDS or other accepted engineering standards. Dakota County will use a professional engineering firm for final design drawings and for technical certification. Maintenance will be performed by Dakota County and the City of West St. Paul as identified in a maintenance agreement. A surface wet storage surface area will be created and sized to provide sufficient capacity throughout the season to irrigate an annual average volume of 4.5 acre feet over the 3.5 acre irrigation area.
Category	WETLAND RESTORATION/CREATION
Has Rates and Hours?	No

Activity Action - Wetland Restoration

Practice	657 - Wetland Restoration	Count of Activities	1
Description	Restoration of the existing Wentworth Pond and restoration of adjacent (filled) historic wetland will be completed with the project to provide significant sediment and TP removals annually. Vegetation restoration and a weir will be constructed to control stormwater flows routed to the restored creek, infiltration area, and reuse system.		
Proposed Size / Units	2 COUNT	Lifespan	25 Years

Grant Attachments

Document Name	Document Type	Description
2020 Competitive Grant	Grant Agreement	2020 Competitive Grant - Dakota County
Application	Workflow Generated	Workflow Generated - Application - 09/09/2019
Thompson Oaks Project Layout	Grant	Thompson Oaks Targeted Stormwater Management and Wetland Restoration Project
Thompson Oaks Project Layout	Grant	Thompson Oaks Targeted Stormwater Management and Wetland Restoration Project
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 04/16/2020
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 01/22/2020
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 02/25/2020

Document Name	Document Type	Description
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 03/31/2020
Work Plan	Workflow Generated	Workflow Generated - Work Plan - 04/13/2020
grantmap_23651_2019-08-22_03-41-07-PM.jpg	Grant	Thompson Oaks Targeted Stormwater Management and Wetland Restoration Project